

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A video game system for playing interactive animated video games using ~~a handheld controller~~ hand-operated handheld controls that produces video game animation control signals in response to manipulation by a user, the video game system including a ~~console~~ main game unit that generates game images, including ~~an~~ at least one animated three-dimensional player object, for animated display during animated game play, the ~~console~~ main game unit including a processor and also having a memory that stores at least a portion of a game program, wherein:

the processor receives said game control signals from the handheld ~~controller~~ controls, said ~~console~~ main game unit generating a display of the animated three-dimensional player in response to accessing a memory storing the game program, the game program including an image editor, wherein the editor maps an imported two-dimensional image onto the animated three-dimensional player object, wherein the game program animates said three-dimensional player to move under control of said game control signals the processor receives from the handheld ~~controller~~ controls,

wherein said processor performs an automatic shade compensation non-linear filter operation that substantially eliminates undesirable shade discontinuities within or along the edge of the mapped two-dimensional image, said non-linear filter operation

modifying the intensity of each pixel in the two-dimensional image as a function of pixel position.

2. (Currently Amended) A video game system as in claim 1 wherein the imported two-dimensional image is ~~an~~ a two-dimensional image of a face.

3. (Previously presented) A video game system as in claim 1 further comprising a digital camera coupled to said processor system, and said digital camera captures the two-dimensional image in real time under control of the game program.

4. (Currently Amended) A video game system as in claim 3 wherein the digital camera is included in a removable cartridge insertable into an insertion port associated with the ~~console~~ main game unit.

5. (Original) A video game system as in claim 1 wherein the processor comprises a microcontroller and a graphics processor.

6. (Currently Amended) A video game system as in claim 1 wherein the memory storing the game program and the video editor is included in a game cartridge insertable into an insertion port associated with the ~~console~~ main game unit.

7. (Currently Amended) A video game system as in claim 1 further comprising a player memory electrically coupled to said processor and storing, in the player memory, data indicative of the two-dimensional image as mapped onto the three-dimensional player object.

8. (Currently Amended) A video game system as in claim 7 wherein the player memory is separable from the ~~console~~main game unit.

9. (Previously presented) A video game system as in claim 7 wherein the player memory is a portable removable memory cartridge.

10. (Currently Amended) A video game system as in claim 9 wherein the player cartridge physically connects to the ~~controller~~controls.

11. (Currently Amended) A video game system as in claim 1 wherein the handheld ~~controller~~is controls comprise a hand controller separate from the ~~console~~main game unit.

12. (Currently Amended) A video game system as in claim 1 wherein said handheld ~~controller comprises~~controls comprise first and second handheld controllers each having a player cartridge storing data indicative of different two-dimensional images.

13. (Currently Amended) A video game system as in claim 1 further comprising a display coupled to said ~~console~~main game unit and showing the three-dimensional player object during game play.

14. (Original) A video game system as in claim 13 wherein said display is a television.

15. (Previously presented) The video game system of claim 1 wherein the image editor provides a coordinate identifier that identifies coordinates on the 2D image to be mapped to triangles for a 3D face.

16. (Currently Amended) The video game system of claim 1 wherein the image editor is operated by the user of the video game in response to manipulation of said handheld ~~controller~~controls.

17. (Previously presented) The video game system of claim 1 wherein the image editor allows editing in either a 2D mode or a 3D mode.

18. (Previously presented) The video game system of claim 1 wherein the image editor allows editing of a 2D image while displaying the 3D image in real time to show the 3D effects of said editing.

19. (Previously presented) The video game system of claim 1 wherein the image editor allows the user to select between plural 3D heads on which to map a 2D image.

20. (Previously presented) The video game system of claim 1 wherein the image editor also manipulates a 3D head onto which to map the 2D image, in order improve the appearance of a 2D face mapped onto the head.

21. (Previously presented) The video game system of claim 20 wherein the editor provides for 3D head manipulation of both the front view shape and the front-to-back dimension of the head.

22. (Previously presented) The video game system of claim 1 further including a portable storage device that stores a representation of a personalized game player.

23. (Previously presented) The video game system of claim 1 wherein said image editor maps a 2D facial image onto a 3D head.

24. (Currently Amended) The video game system of claim 1 wherein the image editor randomly places the two-dimensional image onto computer controlled players~~player~~ objects.

25. (Previously presented) The video game system of claim 1 wherein the image editor maps the 2D image onto a selected 3D head.

26. (Currently Amended) The video game system of claim 1 wherein the handheld controls are disposed on a handheld controller ~~includes including an~~ insertion slot for receiving a digital camera having a 2D image capture memory disposed therein, said controller insertion slot also receiving a memory for storing a 3D head pre-mapped with the 2D image.

27. (Previously presented) The video game system of claim 1 wherein the image editor personalizes a game player to have the face of the user of the video game system.

28. (Previously presented) The video game system of claim 1 wherein said video game system includes plural handheld controllers for simultaneous operation by plural associated users each having ~~a~~-video game characters associated therewith.

29. (Previously presented) The video game system of claim 28 wherein each of said plural video game characters has a personalized face specified by an associated user.

30. (Previously presented) The video game system of claim 1 wherein said image editor includes a real time image capture routine that displays a captured image within a template of a predetermined shape.

31. (Previously presented) The video game system of claim 30 wherein said template predetermined shape comprises an oval.

32. (Previously presented) The video game system of claim 1 wherein the image editor includes a face mapping routine that determines the center of the 2D image relative to a predetermined portion of the three-dimensional player.

33. (Currently Amended) The video game system of claim 1 wherein the image editor calculates transformed texture coordinates for each of plural vertices of a polygon mesh defining said three-dimensional player object.

34. (Currently Amended) The video game system of claim 1 wherein the image editor permits the user to edit at least one of the color and the shape of said two-dimensional image by manipulating the handheld ~~controller~~ controls.

35. (Previously presented) The video game system of claim 1 wherein the image editor automatically balances the contrast of the image to reduce unintended effects of shading on the image.

36. (Previously presented) The video game system of claim 35 wherein the image editor balances the contrast by comparing the brightness of one side of the image to the brightness of other side of the image, and adjusts contrast in response to results of the comparison.

37. (Previously presented) The video game system of claim 36 wherein the image editor applies brightness adjustment linearly across the image without adjusting brightness at the center of the image, in order to avoid creating a perceptible contrast change at the image center.

38. (Previously presented) The video game system of claim 1 wherein the image editor applies a non-linear filter to the two-dimensional image so as to modify image intensity as a function of position.

39. (Currently Amended) In a video game playing system, a method of allowing a video game player to interactively map a two-dimensional image onto a three-dimensional animated object comprising:

- (a) obtaining a two-dimensional image;
- (b) selecting a three-dimensional object comprising a polygon mesh;
- (c) changing, under interactive user control, the shape of the polygon mesh in order to provide a more optimal mapping of the two-dimensional image onto the polygon mesh;

(d) texture mapping the two-dimensional image onto the shape-changed polygon mesh; and

(e) animating, on an interactive real time basis, the three-dimensional object including the texture-mapped two-dimensional image as part of animated video game play,

wherein the method further includes finding the center of the two-dimensional image with respect to the three-dimensional object by defining transformation scalars that convert the position of the three-dimensional polygon mesh into a corresponding two-dimensional texture coordinate to thereby indicate the corresponding position in two-dimensional space that the three-dimensional vertex position should represent.

40. (Previously presented) The method of claim 39 wherein the animating step comprises controlling the motion of the three-dimensional object in response to interactive user manipulation of a handheld controller.

41. (Previously presented) The method of claim 39 wherein the obtaining step (a) includes capturing the two-dimensional image with a digital camera in real time during video game operation.

42. (Previously presented) The method of claim 39 further including repeating said steps (a)-(d) to provide multiplayer game play including plural animated texture-mapped three-dimensional objects interactively controlled by different video game players.

43. (Previously presented) The method of claim 39 wherein the shape-changing step comprises changing the dimensions of at least a portion of said object in at least two dimensions.

44. (Previously presented) The method of claim 39 wherein the shape-changing step comprises changing the dimensions of at least a portion of said object in three dimensions.

45. (Previously presented) The method of claim 39 wherein the two-dimensional image comprises a facial image of an individual having a real-life head shape, and the shape-changing step comprises editing the shape of a three-dimensional virtual head to permit reshaping of the three-dimensional virtual head to better conform to the real-life head shape of the individual.